

In the Claims

The status of claims in the case is as follows:

1 1. [Currently amended] A collaboration space including a
2 plurality of rooms in a hierarchical structure with access
3 control list control on rooms and access control list
4 control on forward pointers to child rooms, comprising:

5 a place comprising a plurality of subrooms, each
6 subroom being an independent entity belonging to said
7 place,

8 said place having a first data note including a
9 directory of members of said place and

10 each subroom within said place having a data note
11 associated therewith containing an access control
12 list of members selected exclusively from said
13 directory of members by a member of said place
14 having manager or author authority with respect to
15 said subroom for specifying users of said place
16 authorized to access said subroom;

17 forward and reverse pointers for linking said subrooms,
18 each said forward pointer to a child room including
19 indicia identifying said child room, indicia specifying
20 the address location of the entity forming said child
21 room, and a readers field for providing access control
22 list control on said forward pointer;

23 said readers field being a members object for

24 identifying those members of said subset of members of
25 said place authorized to access a parent subroom that
26 are also authorized to access a child subroom and for
27 each member of said subset of members a level of
28 authorization; [[and]]

29 a document readers field for a document containing data
30 in said subroom being a members object for identifying
31 a subset of members of said place authorized to access
32 a subroom who are also authorized to access said
33 document; and

34 said collaboration space comprising a hierarchy of
35 rooms, each room being a place in collaboration space
36 including said directory of members; said directory of
37 members, said access control list of members, and said
38 readers field selectively providing increased,
39 decreased, and maintained access to a child place in
40 collaboration space, with access at any level of
41 authority to a child place enabled only for those
42 authorized to access a corresponding parent place, and
43 whether a link to a child place will be enabled for a
44 specific user in its corresponding parent place.

1 2. [Original] The collaboration space of claim 1, said
2 levels of authorization including manager, author, and
3 reader.

1 3. [Currently amended] A collaboration space, comprising:
2 a place comprising a plurality of rooms in a

3 hierarchical structure linked by forward and backward
4 pointers;

5 a member directory for said place identifying users
6 authorized to enter said place;

7 each said room comprising one or more pages, and for
8 each said room a members object for identifying a
9 subset of members of said place authorized to access
10 said room and for each member a level of authorization,
11 each member of said subset of members being a user
12 authorized in said member directory to enter said
13 place;

14 said rooms including a parent room and a child room,
15 and said pointers comprising forward and backward
16 pointers for enabling the security of each said room to
17 be independently managed, said forward pointers
18 including indicia identifying said child room, indicia
19 specifying the address location of the database forming
20 said child room, and a readers field for providing
21 access control list control on said forward pointer,
22 said readers field for identifying those members of
23 said subset of members of said place authorized to
24 access a parent room that are also authorized to access
25 a child room; and

26 said collaboration space comprising a hierarchy of
27 rooms, each room being a place in collaboration space
28 including a member directory; said member directory,
29 said members object, and said readers field selectively
30 providing increased, decreased, and maintained access

31 to a child place in collaboration space, with access at
32 any level of authority to a child place enabled only
33 for those authorized to access a corresponding parent
34 place, and whether a link to a child place will be
35 enabled for a specific user in its corresponding parent
36 place.

1 4. [Previously presented] The collaboration space of
2 claim 3, said readers field including an access authority
3 for each reader authorized to enter said room selectively as
4 manager, author or manager.

1 5. [Previously presented] The collaboration space of
2 claim 3, each said forward pointer being a secure pointer by
3 carrying the same level of security as the child room to
4 which it points.

1 6. [Previously presented] The collaboration space of
2 claim 5, each said forward pointer carrying in said readers
3 field the same security as that of the subroom to which it
4 points.

1 7. [Previously presented] The collaboration space of
2 claim 6, further comprising a display for presenting to a
3 specific user viewing a parent room a listing of its
4 subrooms, said listing including for said specific user only
5 those subrooms for which said readers field in said forward
6 pointer includes an entry authorizing access by said
7 specific user.

1 8. [Currently amended] An access control system for
2 controlling user access to forms and documents a
3 collaboration space organized in a hierarchical structure of
4 parent rooms and child rooms containing said forms and
5 documents, each room being a place in said collaboration
6 space, comprising:

7 an access control list of a root place for specifying
8 users who can are members of said collaboration space;

9 for users authorized to access said collaboration
10 space, said access control list further specifying
11 access levels and roles determining specific actions
12 said users are authorized to perform, said roles
13 including reader, author, and manager;

14 a form selectively including a form access list;

15 a room in said collaboration space including at least
16 one document created from said form;

17 a forward pointer linking said form to said document
18 and a reverse pointer linking said document back to
19 said form;

20 said form access list identifying a subset of users who
21 are members of said collaboration space who are
22 authorized to read documents created from said form;

23 each said forward pointer to a document including
24 indicia identifying said document, indicia specifying

25 the address location of said document, and a readers
26 field for providing access control list control on said
27 forward pointer including a document access field
28 selectively including for each user authorized to
29 access said document indicia specifying whether said
30 authorized user can read or modify said document; users
31 identified in any said form access list for said form
32 from which said document was created being included in
33 said readers field;

34 entries in said readers field specifying whether a link
35 to a child place is enabled in its parent place and
36 granting authorization to an individual user equal to
37 or less than the authorization for said individual user
38 in said access control list; and

39 entries in said authors field selectively granting
40 authorization to a user authorized as an author in said
41 access control list to edit a document which said
42 author creates.

1 9. [Currently amended] A method for controlling access to
2 rooms within a collaboration place, comprising the steps of:

3 maintaining for said collaboration place an access
4 control list identifying those users authorized to
5 enter said place;

6 providing forward and reverse pointers linking said
7 rooms in a hierarchical structure within said place,
8 said forward pointers including indicia identifying a

9 child room, indicia specifying the address location of
10 the database forming said child room, and a readers
11 field for providing access control list control on said
12 forward pointer, said readers field exclusively
13 specifying a subset of said users authorized to enter
14 said place; [[and]]

15 displaying a parent room to a specific user, said
16 parent room including a list of children rooms for
17 which said readers fields on said forward pointers
18 authorize said specific user access; and

19 said collaboration space comprising a hierarchy of
20 rooms, each room being a place in collaboration space
21 including an access control list; said access control
22 list and said readers field on forward links from a
23 parent place to a child place selectively providing
24 increased, decreased, and maintained access to said
25 child place in collaboration space, with access at any
26 level of authority to said child place enabled only for
27 those authorized to access a corresponding parent
28 place, and whether a link to a child place will be
29 enabled for a specific user in its corresponding parent
30 place.

31 10. [Currently amended] A method for creating a child room
32 within a collaboration place data base, comprising the steps
33 of:

34 providing for said collaboration place data base a
35 first access control list identifying users authorized

36 to access said data base;

37 providing for said child room a back pointer to a
38 parent room; and

39 providing at said parent room for said child room a
40 forward pointer from said parent room to said child
41 room, said pointer including indicia identifying said
42 child room, indicia specifying the address location of
43 the database forming said child room, and a readers
44 access field listing a subset of users in said first
45 access control list who are users authorized to access
46 said child room for providing a second access control
47 list specific to said forward pointer;

48 initially including in said readers access field for a
49 child room created from a form users identified in a
50 form access list identifying users authorized to read
51 rooms created from said form; [[and]]

52 limiting reader access in said readers access field to
53 said child room for a specific user to no more than the
54 access granted said specific user in said first access
55 control list; and

56 said collaboration space comprising a hierarchy of
57 rooms, each room being a place in collaboration space
58 including an access control list; said access control
59 list and said readers access field on forward links
60 from a parent place to a child place selectively
61 providing increased, decreased, and maintained access
62 to said child place in collaboration space, with access

63 at any level of authority to said child place enabled
64 only for those authorized to access a corresponding
65 parent place, and whether a link to a child place will
66 be enabled for a specific user in its corresponding
67 parent place.

11. [Canceled]

12. [Canceled]

1 13. [Currently amended] A program storage device readable
2 by a machine, tangibly embodying a program of instructions
3 executable by a machine to perform method steps for
4 controlling access to rooms within a collaboration place,
5 said method steps comprising:

6 maintaining for said collaboration place a first access
7 control list identifying those users authorized to
8 enter said place;

9 providing forward and reverse pointers linking said
10 rooms within said place, said forward pointers
11 including indicia identifying a child room, indicia
12 specifying the address location of the database forming
13 said child room, and a second access control list
14 including a readers field specifying each user having
15 manager, author, and reader access to said child room,
16 said readers field exclusively specifying a subset of
17 said users authorized to enter said place; [[and]]

18 displaying a parent room to a specific user, said
19 parent room including a list of children rooms for

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20 which said readers fields on said forward pointers
21 authorize said specific user access; and

22 said collaboration space comprising a hierarchy of
23 rooms, each room being a place in collaboration space
24 including an access control list; said first access
25 control list, and second access control lists on
26 forward links from a parent place to a child place,
27 selectively providing increased, decreased, and
28 maintained access to said child place in collaboration
29 space, with access at any level of authority to said
30 child place enabled only for those authorized to access
31 a corresponding parent place, and whether a link to a
32 child place will be enabled for a specific user in its
33 corresponding parent place.

1 14. [Canceled]

1 15. [Currently amended] A computer program product for
2 controlling access to rooms within a collaboration place
3 comprising:

4 a computer readable medium;

5 first program instructions for maintaining for said
6 collaboration a first access control list identifying
7 those users authorized to enter said place;

8 second program instructions for providing in a parent
9 room second access control list identifying a subset of

10 those user authorized to enter said place who are also
11 authorized to enter said parent room with manager,
12 author, or user access;

13 third program instructions for providing forward and
14 reverse pointers linking said parent room with a child
15 room in a double-linked list within said place, said
16 forward pointers having a readers field providing a
17 third access control list on said forward pointer, said
18 third access control list providing access to said
19 child room for those members who are included in said
20 second access control list who are also authorized to
21 access said child room;

22 fourth program instructions for displaying a parent
23 room to a specific user, said parent room including on
24 said forward pointers a list of children rooms for
25 which said readers fields authorize said specific user
26 access;

27 fifth program instructions establishing said
28 collaboration space as comprising a hierarchy of rooms,
29 each room being a place in collaboration space
30 including an access control list; said first access
31 control list, said second access control list, and said
32 third access control list selectively providing
33 increased, decreased, and maintained access to said
34 child place in collaboration space, with access at any
35 level of authority to said child place enabled only for
36 those authorized to access a corresponding parent
37 place, and whether a link to a child place will be
38 enabled for a specific user in its corresponding parent

39 place; and wherein

40 said first, second, third, [[and]] fourth, and fifth
41 program instructions are recorded on said computer
42 readable medium.

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